REUSABLE SOFTWARE COMPONENTS FOR INVOKING COMPUTATIONAL MODELS

ABSTRACT

In general, the invention is directed to a system of reusable software components that allow computational models to be seamlessly integrated into an executable software program, such as process management software within a manufacturing facility. The system includes a set of objects that encapsulate computational models and provide generic interfaces for invoking the models. A control module is embedded within the software program to invoke the computational models in parallel. The system may further include a model aggregator to receive input values from the control module and to distribute the input values to the objects for use during model execution. The system can be used to quickly and easily provide the results of one or more process models to line operators and process engineers during the manufacturing process, allowing the process engineer or line operator to more readily understand and adjust the process.